

REMARKS

The Official Action of 20 October 2005 has been carefully considered and reconsideration of the application as amended is respectfully requested.

Claim 1 has been amended to remove the basis for the rejection under 35 USC 112, second paragraph, without narrowing the scope thereof. The amendment clarifies what would have been clear from the application, including claim 1, as filed: the amount of the saline water (containing 11000 to 30000 ppm of sodium chloride) in step (i) is not less than 300% by volume based on the weight of the raw hides/skins being processed. Similarly, the amendment clarifies that, in step (ii), the amount of alkali metal is not less than 2% by weight based on the weight of the skins, and the alkali metal is used with not more than 200% by volume of water based on the weight of the skins. The time periods defined in steps (i) and (ii) draw support from the specification as filed at, for example, page 4, lines 14-17.

Claim 2 has been amended in accordance with the description in the specification at page 4, lines 12-14, so as not to be duplicative of claim 1. Claim 3 has been split into two (2) claims, including new claim 9. Claims 2-6 and 8 have been amended to make changes of a formal nature that do not affect the claim scope.

New claims 10-15 have been added more completely to define the subject matter which Applicants regard as their invention. Claim 10 has been written in Jepson format in

accordance with the preference expressed in 37 CFR 1.75(e), with the conventional or known steps in the preamble and an improvement in the body of the claim. The conventional or known steps are described in the specification at, for example, page 1, last paragraph, and the improvements are described in the specification at, for example, page 4, lines 20-26. The other new claims track recitations in claims 1-8 and draw clear support from the specification as filed.

Claims 1-4 and 6-8 stand rejected under 35 USC 103(a) as allegedly being unpatentable over Rodriguez et al. Claim 5 stands rejected under 35 USC 103(a) as allegedly being unpatentable over Rodriguez et al in view of Panepinto. Applicants respectfully traverse these rejections.

The claimed invention is based at least in part on Applicants' discovery that saline water of high salinity, which is normally not suitable for leather processing, may be used in an initial (soaking) operation if the soaking in the saline water is done in the presence of a salt of an alkali metal or alkaline earth metal. This discovery is surprising insofar as it is common knowledge in the modern leather trade that high salinity in the water used for leather processing jeopardizes the leather quality by repressing swelling excessively. Indeed, those of skill in the art recognized that the use of untreated seawater results in poor opening of fiber structure, fallen (non-swollen) substrates, and non-loosened flesh (see specification at page 2, lines 21-25).

In contradistinction to the conventional wisdom, the claimed invention recites the use of salt water of high salinity in an initial, soaking step (step (i)), for facilitating later removal of non-

collagenous material and, only **after** the soaking step, “liming” the soaked stock (i.e., treating with alkali) to swell the protein that facilitates easy removal of the non-collagenous layer. The claimed invention thus provides the option of using highly saline water for leather processing to produce quality leather.

In contrast to the invention recited in the claims, Rodriguez et al disclose a method of leather processing whereby raw hides/skins are subjected to alkali treatment in the presence of salt in a single, combined pretreatment operation. There is no initial step of soaking in saline water of high salinity in the presence of an alkali metal or alkaline earth metal salt, and there is no motivation in Rodriguez or in the prior art generally to modify the reference to provide this initial (separate) step. To the contrary, the role of the salt in Rodriguez is to insure that unwanted swelling, which is likely to be caused due to the alkaline action, is controlled. (The salt present in the processing liquor of the “First Treating Bath” of Rodriguez represses swelling of the hide/skin being processed.) If the combined pretreatment operation described in Rodriguez were separated into two steps (an initial “soaking” step and a subsequent “liming” step), there would be no motivation to use either the saline water or the salt in the soaking step.

Moreover, Rodriguez teaches away from the provision of a separate soaking step. See Rodriguez at, e.g., column 2, lines 52-57. In view of this teaching away, there would be no motivation, absent the hindsight provided by the present specification, to modify the reference to arrive at the claimed invention. See MPEP Section 2143.01(VI) (“The Proposed Modification Cannot Change the Principle of Operation of a Reference”).

The Examiner contends that it would have been obvious to include a pretreatment step of salting the hides or skins because Rodriguez at column 3, line 63 teaches that the hides or skins used in Rodriguez' combined treatment may have been previously salted. However, such pretreatment step is not the equivalent of the recited step (i). For example, there is nothing to show or suggest that such pretreatment with, for example, a brine solution may be done in the presence of an alkali or alkaline earth metal salt. Moreover, there is nothing to show or suggest that such pretreatment be used for rehydration of the hide/skin to facilitate removal of non-collagenous material (see, e.g., claim 10). Accordingly, the cited primary reference, even with a pretreatment with salt, does not show all features of the claimed invention. Since the secondary reference cannot supplement the deficiencies in the primary reference, it is respectfully submitted that the references cannot be used to set forth even a *prima facie* case of obviousness for the invention as claimed (see MPEP Section 706.02(j)).

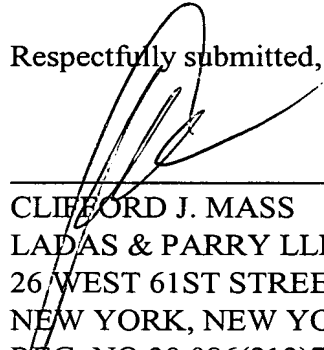
As to use of calcium hydroxide for treating hides (claims 5 and 13) it is respectfully noted that use of calcium hydroxide forms a conventional unit operation of leather processing, whereby the soaked hides/skins are subjected to liming operation. However, in the claimed invention, the calcium hydroxide can play a dual role. The first one is to facilitate the use of highly saline water, which is normally not suitable for leather processing. As mentioned earlier, water containing high salinity cannot be used normally for leather processing. This has been made possible in the claimed invention by using calcium hydroxide in step (i). This has nothing to do with the conventional unit operations for leather processing.

The second role of the calcium hydroxide is to carry out the conventional unit operation of liming, as disclosed in the prior art literature including the cited patents. However, this would not show or suggest the use of alkali salt in step (i), as required by the claims.

In short the claimed invention provides the option of utilizing the vast source of sea water for leather processing, which is water intensive, in a manner not shown or suggested in the prior art.

In view of the above, it is respectfully submitted that all rejections and objections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,



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